

REMARKS/ARGUMENTS

**Claim Amendments**

The Applicant has amended claims 1, 5, 11, 17, 34, 37-38, 41-42, 49, 74, 77, and 79; claims 2, 35, 50 and 78 have been cancelled; Claims 80 and 81 have been added. Support for amending claims 1 and 34 may be found in paragraph 63 of the Application. Applicant respectfully submits no new matter has been added. Accordingly, Claims 1, 3-34, 36-77 and 80-81 are pending in the application. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

**Examiner Objections - Claims**

The Examiner objected to claim 1 because of informalities. The Applicant appreciates the Examiner's thorough review of the claims. The Applicant has amended the claims as suggested by the Examiner in order to correct the informalities. The Examiner's consideration of the amended claims is respectfully requested.

**Claim Rejections – 35 U.S.C. § 102(b)**

Claims 1-3 and 34-36 stand rejected under 35 U.S.C. 102(b) as being anticipated by Kyritsi, "MIMO Capacity in Free Space and Above Perfect Ground: Theory and Experimental Results" (hereinafter Kyritsi). Claims 2 and 35 have been canceled rendering the rejection of these claims moot. The Applicant respectfully traverses the rejection of the remainder of these claims.

Claims 1 and 34 have been amended to include the limitations where the separation of the antenna elements is defined in relation to communications distance, communications wavelength and the number of antenna elements. The Applicant respectfully submits that the Kyritsi reference does not disclose all of these limitations. The Applicant respectfully requests the allowance of claims 1 and 34 and the respective dependent claims 3 and 36.

Claims 11, 12, 27, 32, 49, 50, 54, 65, 68, 69, 73, 75, 77, 78 stand rejected under 35 U.S.C. 102(b) as being anticipated by Wong, *et al* (US 6,323,823). The Applicant has

canceled claim 78 rendering the rejection of this claim moot. The applicant respectfully traverses the rejection of the rest of these claims.

The Wong reference is cited as disclosing a clustered antenna array comprising a plurality of antenna elements with the elements separated by a distance set in relation to communication distance. Independent claims 1, 34 have been amended and the Applicant submits that Wong does not disclose the three limitations regarding separation of the antenna elements that are now part of the independent claims. This being the case, the Applicant respectfully requests the allowance of

**Claim Rejections – 35 U.S.C. § 102(e)**

Claims 1-3 and 34-36 stand rejected under 35 U.S.C. 102(b) as being anticipated by Agee, *et al* (US 7,248,841). Claims 2 and 35 have been canceled rendering the rejection of these claims moot. The Applicant respectfully traverses the rejection of the remainder of these claims.

Claims 1 and 34 have been amended to include the limitations where the separation of the antenna elements is defined in relation to communications distance, communications wavelength and the number of antenna elements. The Applicant respectfully submits that the Agee reference does not disclose all of these limitations. The Applicant respectfully requests the allowance of claims 1 and 34 and the respective dependent claims 3 and 36.

Claims 1-3 and 34-36 stand rejected under 35 U.S.C. 102(b) as being anticipated by Jia, *et al* (US 7,356,089). Claims 2 and 35 have been canceled rendering the rejection of these claims moot. The Applicant respectfully traverses the rejection of the remainder of these claims.

Claims 1 and 34 have been amended to include the limitations where the separation of the antenna elements is defined in relation to communications distance, communications wavelength and the number of antenna elements. The Applicant respectfully submits that the Jia reference does not disclose all of these limitations. The Applicant respectfully requests the allowance of claims 1 and 34 and the respective dependent claims 3 and 36.

**Claim Rejections – 35 U.S.C. § 103 (a)**

The Examiner rejected claims 4 and 37 under 35 U.S.C. § 103(a) as being unpatentable over Jia, et al. (US 7,356,089). Claims 2 and 35 have been canceled rendering the rejection of these claims moot. The Applicant respectfully traverses the rejection of the remainder of these claims.

Claims 4 and 37 depend from independent claims 1 and 34 which have been amended to include limitations where the separation of the antenna elements is defined in relation to communications distance, communications wavelength and the number of antenna elements. The Applicant respectfully submits that the Jia reference does not disclose all of these limitations. The Applicant respectfully requests the allowance of claims 4 and 37.

The Examiner rejected claims 13-16 and 51-53 under 35 U.S.C. § 103(a) as being unpatentable over Wong, et al. (US 6,323,823). The Applicant respectfully traverses the rejection of the remainder of these claims.

Claims 13-16 and 51-53 depend from independent claims 1 and 34 which have been amended to include limitations where the separation of the antenna elements is defined in relation to communications distance, communications wavelength and the number of antenna elements. The Applicant respectfully submits that the Jia reference does not disclose all of these limitations. The Applicant respectfully requests the allowance of claims 4 and 37.

**Allowable Subject Matter**

Claims 5-10, 17-26, 28-31, 33, 38-48, 55-64, 66, 67, 70-72, 74, 76 and 79 were objected to as to being dependent upon a rejected base claim, but were indicated as being allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Applicant has amended independent Claim 1 and independent Claim 34 to include allowable subject matter from claims 5 and 38, that of communications wavelength and the number of antenna elements.

**CONCLUSION**

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw all rejections and issue a Notice of Allowance for all pending claims.

The Applicant requests a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,

/Sidney L. Weatherford/

By Sidney L. Weatherford  
Registration No. 45,602

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Ericsson Inc.  
6300 Legacy Drive, M/S EVR 1-C-11  
Plano, Texas 75024  
[sidney.weatherford@ericsson.com](mailto:sidney.weatherford@ericsson.com)  
(972) 583-8656